

Efficacy Review

Date: March 4, 2011

Efficacy Reviewer: Clayton Myers, Ph.D., Entomologist, RD-IB
myers.clayton@epa.gov
703-347-8874

Risk Manager Rev.: BeWanda Alexander

Product: F8028-3 Insecticide

EPA Reg. #: 279-OLUO

A.I.'s: Bifenthrin (0.06%)

Decision #: 440102

DP #'s: 384163

Submission: R310, New Product, includes RD Science Review

MRIDs: Submitted: 48235708

GLP: No

MRID 48235708:

Title: Efficacy of F8028-3 Aerosol Foam for Knockdown of Termites, Carpenter Ants, and Cockroaches (German).

Materials and Methods: A laboratory study was conducted to evaluate knockdown and killing efficacy against Eastern Subterranean Termites (*R. flavipes*), Carpenter Ants (*C. pennsylvanicus*), and German Cockroaches (*Blattella germanica*) using direct spray methods. Test substances were applied to insects in spray cartridges 1.75" inside diameter, covered with mesh (for termites) or 9 oz Solo cups (for ants and cockroaches). Arenas were sprayed for 1 second, corresponding to 2mL of material, approximately equal to label rates for the submitted product, and for Talstar (non-foam) applications. Controls were left untreated. 3 reps of 10 insects were treated for each species, and the study was replicated 3 times (total of 90 insects per treatment). Cups were removed after 10 minutes to eliminate excess residue and insects were removed to clean containers (petri dishes) after 2 hours. Mortality was assessed at 30 min, 1, 2, 4, and 24 hr after treatment.

Guideline: OCSPP (formerly OPPTS) 810.3500

Study Summary of the Results:

1. Termite mortality was 100% within 4 hours
2. Carpenter ant mortality was 100% within 24 hours
3. German cockroach mortality was 100% within 72 hours and 93% within 48 hours

Entomologist's Observations/Discussion:

1. For support of direct killing claims, insects should be removed from treated arenas within five minutes of treatment, with mortality confirmed within 24 hours. This study did not remove insects to clean containers until 2 hours after treatment. However, much data has been submitted for similar bifenthrin formulations/applications at similar rates. These cited data do adequately support killing claims against the listed pests (registrant submitted under the cite-all option).
2. Because this study did not evaluate aged residues of the submitted foam product, it cannot be used to support residual claims against termites or carpenter ants. Moreover, no residual data has been submitted to the Agency that would support residual claims against termites for products applied to surfaces at the rate of 0.06% bifenthrin.

Overall Review of Label Claims:

1. Killing claims against the listed pests are supported by the cited bifenthrin database.
2. Claims of residual control (for up to 8 weeks) are not supported for termites by either submitted data or cited data, and therefore, such claims must be removed from the label.
3. The following label statement must be added to the label: "This product is intended to kill exposed actively foraging insects and is not intended to provide stand-alone protection to structures from wood-infesting insects."

Line by Line Label Efficacy Claims:

Provides 8 Week Residual Control: Unacceptable, unless qualified to exclude termites

Kills Wood Destroying and Infesting Pests: Must be revised to say "listed . . . pests"

Broad Spectrum Insect Control of the Following: Ants*, Carpenter Ants, Bedbugs, Bees, Biting Flies, Carpenter Bees, Centipedes, Chiggers, Cockroaches, Fire Ants, Fleas, Hornets, Mosquitoes, Paper Wasps, Scorpions, Spiders, Termites (Subterranean, Formosan, and Drywood)*, Ticks, Wasps, Yellow Jackets, and many other crawling insects, *for localized above ground treatment only: Acceptable

DIRECTIONS FOR USE

This product has residual action which continues to kill insects for up to 8 weeks after application: Unacceptable unless qualified to exclude termites.

WOOD INFESTING INSECTS:

Termites (Subterranean, Formosan, and Drywood), Carpenter Ants, Carpenter Bees, Bees and Wasps: Acceptable

INDOOR, GENERAL PESTS:

For control of the following insects and arthropods in homes: Ants, Carpenter Ants, Bedbugs, Bees, Biting Flies, Centipedes, Chiggers, Cockroaches, Fleas, Flies, Mosquitoes, Scorpions, Spiders (including Black Widow, Brown Recluse, and Hobo Spiders), Ticks (including Brown Dog Ticks), Wasps, Water bugs, Yellow Jackets, and other crawling insects: Apply to all areas where these pests crawl and hide: Acceptable if revised to say for control of 'exposed insects and arthropods'

Fleas and Carpet Beetles: Apply in cracks and crevices in closets or other localities where these insects are found: Acceptable

OUTDOORS, FOR TREATMENT IN WALLS/STRUCTURES WHERE PESTS ARE HARBORING:

For control of Ants, Carpenter Ants, Fire Ants, Bees, Biting Flies, Centipedes, Chiggers, Cockroaches, Fleas, Flies, Hornets, Mosquitoes, Scorpions, Spiders (including Black Widow, Brown Recluse, and Hobo Spiders), Ticks (including Brown Dog Ticks), and Wasps: Apply to foundation of building where insects are active and may find entrance up to a height of 3 feet. Applications may be made behind veneers (concrete and wood), piers, chimney bases, into rubble foundations, block voids, structural voids, wall voids, under slabs, stoops, porches, or to the soil in crawl spaces and other similar voids: Acceptable if revised to say for control of 'exposed insects and arthropods including . . . '

TERMITES LIVING INSIDE STRUCTURES, TREES, UTILITY POLES, AND FENCING:

Wherever possible locate an interior infested cavity and inject in the appropriate quantities. Repeat applications as necessary to maintain control of re-infestations: Acceptable